

C) REMARKS

The Examiner rejected claims 1 through 5, 7 through 12, 14 through 17, and 19 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,781,010 (Kawasaki et al.) in view of U.S. Patent No. 5,329,925 (NessAiver) on the grounds that "Kawasaki discloses a method and apparatus for MR imaging without a flashing phenomenon of an object having periodical motion that shows all the features of the claimed invention" *with the exception of showing physiological data on an MR image*. The Examiner then combined these features with those of NessAiver, said features mainly including "a reduced scan time cardiac gated resonance CINE and flow imaging that shows an image correlation of both physiological data and MR data" to reject the present application the grounds that it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to create a quantized motion image as is created by the present invention.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference or references must teach or suggest all of the claimed limitations. This teaching or suggestion to combine must be found in the prior art, and not based on the applicant's disclosure.

However, even where the references combined teach each and every element of the claimed invention, if there is no teaching, suggestion or motivation to combine the references within the references themselves, the rejection is improper. The Examiner

may not merely rely on the level of skill in the art to provide the suggestion to combine references. *AL-Sit Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 U.S.P.Q. 2d 1161 (Fed. Cir. 1999). The applicants respectfully suggests that no such suggestion exists in either reference. In fact, the NessAiver reference actually teaches *against* the present invention.

For example, while the Kawasaki reference teaches a method and apparatus intended to provide uniform signal intensity such that all images are approximately equal and the flashing phenomenon is prevented, NessAiver refers to a system in which "collecting all of the views within a single breath hold eliminates the motion artifacts attributable to pulmonary motion." Col. 1, lines 32-34. In other words, NessAiver actually teaches against the present invention in that it provides reducing motion artifacts by collecting all images in a single breath hold as opposed to using a physiological trigger to collect images and display those images together with the physiological data on a more continuous basis.

The Examiner objected to claims 6, 13, 18, and 20 on the grounds that they were dependent upon a rejected base claim, but stated that they were allowable if rewritten in independent form, including the limitations of base claim and any intervening claims. The applicant respectfully suggests that the addition of the limitation of claim 6 to claim 1 places claim 1 in position for allowance. Similarly, the addition of the limitation of claim 13 places claim 7 in position for allowance.

In summary, neither Kawasaki, et al. nor NessAiver disclose a method for correlating MR images with physiological data wherein the method includes displaying

of physiological data and the MR data on the same visual display. Therefore, claims 1 through 5 and claims 7 through 12 are believed to be in position for allowance.

Claim 14 is also believed to be in position for allowance because neither Kawasaki or NessAiver teach, suggest or provide for a system for correlating MR images that includes a scan control processor with means for storing physiological waveform segments wherein said waveform is used as a trigger.

The present invention is patentable over the references cited because it provides a method and apparatus for simultaneously acquiring a physiological signal and a set of MR images and displaying them, the like of which did not exist in the prior art. Only the applicant had the wit and ingenuity to develop the apparatus disclosed in the present invention for. For his wit and ingenuity, he is entitled to a patent. Allowance of all claims is respectfully requested.

Respectfully submitted,
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